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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/966,492	09/28/2001	Ali Cherchali	2000-0219	5290
7590 04/19/2005			EXAMINER	
Samuel H. Dworetsky AT&T CORP. P. O. Box 4110 Middletown, NJ 07748-4110			SOL, ANTHONY M	
			ART UNIT	PAPER NUMBER
			2662	

DATE MAILED: 04/19/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

09/966,492

Applicant(s)

CHERCHALI ET AL.

Examiner

Anthony Sol

Art Unit

2662

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on September 28, 2001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-18 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-18 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 9/28/2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

### DETAILED ACTION

- Applicant's preliminary amendment filed September 28, 2001 has been entered.

### ***Claim Rejections - 35 USC § 102***

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

2. Claims 1 – 7, 9 are rejected under 35 U.S.C. 102(e) as being anticipated by Blum (US 2003/0048772A1).

Regarding claims 1, 6, 7,

Blum discloses a method for providing a full suite of VoIP capabilities (Pg. 1, paragraphs 2 and 10; claim 1 – method for providing full-featured VoIP service).

Referring to Fig.1, Blum shows receiving a VoIP call from subscriber 160 (Pg. 2, paragraph 21; claim 1 – receiving in a first network a VoIP call).

Art Unit: 2662

Blum shows interfacing PSTN to a VoIP enabled access network such as a HFC network for delivery of IP-based telephony service (Pg. 1, paragraphs 8,9; claim 1 – translating in the first network, the VoIP call into a TDM call compatible with a second network; claim 6 – first network is a HFC; claim 7 – second network is a PSTN).

Blum shows the PSTN allows calls, including a caller ID signal, to be delivered to non-IP subscribers (Pg. 1, paragraphs 2,5; claim 1 – second network having capability of processing TDM calls and providing at least one feature for the call).

Blum shows end-office switch functionality if provided through a call agent running NCS protocol to manage the setup and tear down of voice connections over the IP backbone (Pg. 1, paragraph 2; claim 1 – the translation includes performing required signal processing protocols in the first network to allow interaction with first network as if performing switch-based processing).

Referring to Fig. 3, Blum shows mapping of IP signaling to GR-303 format (Pg.1, paragraph 6; claim 1 – mapping IP signaling from first network into second network).

Referring to Fig. 1 – Blum shows routing the call to the PSTN to allow the call to non-IP subscriber destinations (Pg. 1, paragraph 2; claim 1 – routing TDM call to second network; claim 1 – processing TDM call in the second network; claim 1 – routing TDM call to destination).

Art Unit: 2662

Regarding claim 2,

Blum discloses a method that covers all limitations of the parent claim.

Blum discloses in Figs. 2 and 3, the IPDT 200 is capable of separating and translating both call signaling packets and voice packets on the IP network to their appropriate counterparts on the LDS 210 (Pg. 2, paragraphs 22, 23; claim 2 – a step including translating the VoIP call into a bearer portion and signaling portion).

Regarding claim 3,

Blum discloses a method that covers all the limitations of the parent claim.

Blum discloses a method for interfacing a GR303-based interface to a VoIP enabled network and that GR303 protocol contain signaling such as off hook, ring, connection, disconnection, etc. (Pg. 1, paragraphs 4, 8; claim 3 – IP signal is mapped to GR-303 format to include performance as well as functional call aspects to allow full-featured processing by the second network).

Regarding claim 4,

Blum discloses a method that covers all the limitations of the parent claim.

Blum discloses NCS protocol containing signaling such as off-hook. It is inherent in the reference that on-hook line status is included (Pg. 1, paragraph 4; claim 4 – the IP signaling information includes on-hook and off-hook status).

Referring to Fig. 4, Blum shows that the GR303 includes ABCD signaling (Pg. 3, paragraph 29; claim 4 - GR-303 includes ABCD signaling bits). Figs. 5A

Art Unit: 2662

and 5B show an off-hook event and for converting an RTP-based (IP) signaling into an ABCD signaling (Pg. 3, paragraphs 32, 33; claim 4 – the line status in the IP signaling is mapped to an equivalent line status in the ABCD signaling bits).

Regarding claim 5,

Blum discloses a method that covers all the limitations of the parent claim. Referring to Fig. 4, Blum shows that LDS sends a ring signal 454 to the IPDT<sub>B</sub> using GR303 ABCD signaling. The ABCD-based ring signal is received at the IPDT<sub>B</sub>, which converts (maps) the ring signal to a signal in RTP (IP signaling) (Pg. 3, paragraph 29; claim 5 – GR-303 includes ABCD signaling, power ringing indication received via the ABCD signaling bits is mapped to an equivalent power ringing indication in the IP signaling information).

Regarding claim 9,

Blum discloses a method that covers all the limitations of the parent claim. Referring to Fig. 4, Blum shows the routing steps for a VoIP call from the first network, Ta, to the second network (LDS), and then returning to the first network to T<sub>b</sub>. (claim 9 – translating the call back to a VoIP call if the destination lies in the first network).

***Claim Rejections - 35 USC § 103***

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claim 8 is rejected under 35 U.S.C. 103 (a) as being unpatentable over Blum in view of Chow et al (US6771953B1), hereafter Chow.

Blum discloses a method that covers all the limitations of the parent claim.

Blum does not disclose that the second network features include CLASS, custom calling, and Centrex features.

Chow discloses that Local Digital Switch such as the Lucent 5ESS® provide advanced services including Centrex, CLASS, and Custom Calling (Col. 17, lines 2-8; claim 8 – second network features include CLASS, custom calling, and Centrex features).

It would have been obvious to one of ordinary skill in the art at the time of the invention to include in Blum second network features including CLASS, custom calling, and Centrex features as shown by Chow to allow the VoIP customers the use of many calling features.

Art Unit: 2662

5. Claims 10 –16, 18 are rejected under 35 U.S.C. 103 (a) as being unpatentable over Blum in view of Li et al (US2004/213205A1), hereafter Li.

Regarding claim 10,

Blum discloses a method for providing a full suite of VoIP capabilities (Pg. 1, paragraphs 2 and 10; claim 10 – method for providing full-featured VoIP service).

Referring to Fig.1, Blum shows receiving a VoIP call from subscriber 160 (Pg. 2, paragraph 21; claim 10 – receiving in a first network a VoIP call).

Blum shows interfacing PSTN to a VoIP enabled access network such as a HFC network for delivery of IP-based telephony service (Pg. 1, paragraphs 8,9; claim 10 – translating in the first network, the VoIP call into a TDM call compatible with a second network; claim 15 – first network is a HFC; claim 16 – second network is a PSTN).

Blum shows the PSTN allows calls, including a caller ID signal, to be delivered to non-IP subscribers (Pg. 1, paragraphs 2,5; claim 10 – second network having capability of processing TDM calls and providing at least one feature for the call).

Blum shows end-office switch functionality if provided through a call agent running NCS protocol to manage the setup and tear down of voice connections over the IP backbone (Pg. 1, paragraph 2; claim 10 – the translation includes performing required signal processing protocols in the first network to allow interaction with first network as if performing switch-based processing).



Referring to Fig. 3, Blum shows mapping of IP signaling to GR-303 format (Pg.1, paragraph 6; claim 10 – mapping IP signaling from first network into second network).

Referring to Fig. 1 – Blum shows routing the call to the PSTN to allow the call to non-IP subscriber destinations (Pg.1, paragraph 2; claim 10 – routing TDM call to second network; claim 10 – processing TDM call in the second network; claim 10 – routing TDM call to destination).

Blum discloses the advantage of allowing a common infrastructure for both voice and data in the hybrid fiber coax plant (Pg.1, paragraph 1; claim 10 – receiving in the first network a packet-based VoIP call and non-voice data packet). However, Blum does not explicitly disclose steps of receiving in a VoIP call, a non-voice data packet, separating the non-voice packets from the VoIP call, and routing the non-voice packets to a data network.

Li discloses a voice packet switch that includes a plurality of VoIP packet processing circuits operable to receive and transmit data packets over a plurality of IP transmission links and operable to extract data from IP data packets containing both voice and non-voice data packets and insert the extracted data into data frames of a predetermined protocol (Pg. 1, paragraph 8; claim 10 – receiving a non-voice data packet, separating the non-voice packets from the VoIP call, routing the non-voice packets to a data network).

It would have been obvious to one of ordinary skill in the art at the time of the invention to include in Blum steps of receiving non-voice data packet, separating the non-voice packets from the VoIP call, and routing the non-voice

Art Unit: 2662

packets to a data network as shown by Li in order to provide a data transmission service to VoIP customers.

Regarding claim 11,

Blum discloses a method that covers all the limitations of the parent claim. Blum discloses in Figs. 2 and 3, the IPDT 200 is capable of separating and translating both call signaling packets and voice packets on the IP network to their appropriate counterparts on the LDS 210 (Pg. 2, paragraphs 22, 23; claim 11 – a step including translating the VoIP call into a bearer portion and signaling portion).

Regarding claim 12,

Blum discloses a method that covers all the limitations of the parent claim. Referring to Fig. 4, Blum shows that LDS sends a ring signal 454 to the IPDT<sub>B</sub> using GR303 ABCD signaling. The ABCD-based ring signal is received at the IPDT<sub>B</sub>, which converts (maps) the ring signal to a signal in RTP (IP signaling) (Pg. 3, paragraph 29; claim 12 – GR-303 includes ABCD signaling, power ringing indication received via the ABCD signaling bits is mapped to an equivalent power ringing indication in the IP signaling information).

Regarding claim 13,

Blum discloses a method that covers all the limitations of the parent claim. Blum discloses NCS protocol containing signaling such as off-hook. It is inherent

Art Unit: 2662

in the reference that on-hook line status is included (Pg. 1, paragraph 4; claim 13 – the IP signaling information includes on-hook and off-hook status).

Referring to Fig. 4, Blum shows that the GR303 includes ABCD signaling (Pg. 3, paragraph 29; claim 13 - GR-303 includes ABCD signaling bits). Figs. 5A and 5B show an off-hook event and for converting an RTP-based (IP) signaling into an ABCD signaling (Pg. 3, paragraphs 32, 33; claim 13 – the line status in the IP signaling is mapped to an equivalent line status in the ABCD signaling bits).

Regarding claim 14,

Blum discloses a method that covers all the limitations of the parent claim. Blum discloses a method for interfacing a GR303-based interface to a VoIP enabled network and that GR303 protocol contain signaling such as off hook, ring, connection, disconnection, etc. (Pg. 1, paragraphs 4, 8; claim 14 – IP signal is mapped to GR-303 format to include performance as well as functional call aspects to allow full-featured processing by the second network).

Regarding claim 18,

Blum discloses a method that covers all the limitations of the parent claim. Referring to Fig. 4, Blum shows the routing steps for a VoIP call from the first network, Ta, to the second network (LDS), and then returning to the first network to Tb. (claim 18 – translating the call back to a VoIP call if the destination lies in the first network).

6. Claim 17 is rejected under 35 U.S.C. 103 (a) as being unpatentable over Blum in view of Li as applied to claim 10 above, and further in view of Chow.

Blum discloses a method that covers all the limitations of the parent claim.

Blum does not disclose that the second network features include CLASS, custom calling, and Centrex features.

Chow discloses that Local Digital Switch such as the Lucent 5ESS® provide advanced services including Centrex, CLASS, and Custom Calling (Col. 17, lines 2-8; claim 17 – second network features include CLASS, custom calling, and Centrex features).

It would have been obvious to one of ordinary skill in the art at the time of the invention to include in Blum second network features including CLASS, custom calling, and Centrex features as shown by Chow to allow the VoIP customers a use of many calling features.

### ***Conclusion***

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. The Lemley et al reference, US2002/0064152A1, is cited for showing a packetized voice and data communication in a Hybrid-Fiber Coax (HFC) network. The Emerson reference, US6697357B2, is cited for a call management system allowing the integration of the internet with the PSTN such

Art Unit: 2662

that systems, services, and devices on either network can communicate with the systems, services and devices on the other. The Emerson references, US6704305B2 and US6700884B2, are cited for disclosing Integrated Devices and methods to communicate with the PSTN. The Silverman reference, US6731649B1, is cited for disclosing a method and system for processing TDMs for communication over IP networks. The Kaczmarczyk et al reference, US6775269B1, is cited for disclosing a method and system for routing telephone calls between a PSTN and an IP network. The Chapman et al reference, US6785301B1, is cited for disclosing a method and apparatus for conducting call waiting – caller identification in a packet switched network. The Chang et al reference, US2003/0095542A1, is cited for disclosing an apparatus and method for Integrated Voice Gateway. The Zhang et al reference, US6661785B1, is cited for disclosing a method and apparatus for providing internet call waiting with voice over internet protocol.

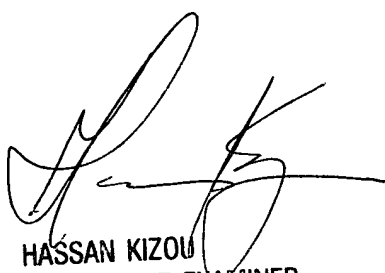
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Anthony Sol whose telephone number is (571) 272-5949. The examiner can normally be reached on M-F 7:30am - 4pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Hassan Kizou can be reached on (571) 272-3088. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Art Unit: 2662

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

AMS  
4-14-2005



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